

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference (if desired) (12 characters maximum) 20912-096805

Box No. I TITLE OF INVENTION
FRAME INTEGRATED REAR SUSPENSION

Box No. II APPLICANT

☐ This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

MAGNA INTERNATIONAL INC.
337 Magna Drive
Aurora, Ontario L4G 7K1
CANADA

Telephone No.

905-726-7015

Facsimile No.

905-726-7173

Teleprinter No.

Applicant's registration No. with the Office

State (that is, country) of nationality:

CANADA

State (that is, country) of residence:

CANADA

This person is applicant for the purposes of:

☐ all designated States

☒ all designated States except the United States of America

☐ the United States of America only

☐ the States indicated in the Supplemental Box

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

IMRE, Christian
529 Jacob Way 205
Rochester, Michigan 48307

This person is:

☐ applicant only

☒ applicant and inventor

☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

AUSTRIA

State (that is, country) of residence:

US

This person is applicant for the purposes of:

☐ all designated States

☐ all designated States except the United States of America

☒ the United States of America only

☐ the States indicated in the Supplemental Box

☒ Further applicants and/or (further) inventors are indicated on a continuation sheet.

Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☒ agent

☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

SIMONELLI, David J.
Clark Hill PLC
500 Woodward Avenue, Suite 3500
Detroit, MI 48226-3435
US

Telephone No.

313-965-8667

Facsimile No.

313-965-8252

Teleprinter No.

Agent's registration No. with the Office

36,680

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet should not be included in the request.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

O'CONNOR, James P.
3133 Sandoval Drive
Lake Orion, Michigan 48360

This person is:

- ☐ applicant only
☒ applicant and inventor
☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:
US

State (that is, country) of residence:
US

This person is
applicant

☐ all designated
States

☐ all designated States except the
United States of America

☒ the United States
of America only

☐ the States indicated
in the Supplemental

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

GABBIANELLI, Gianfranco
1667 Picadilly
Troy, Michigan 48084

This person is:

- ☐ applicant only
☒ applicant and inventor
☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:
CANADA

State (that is, country) of residence:
US

This person is
applicant for the

☐ all designated
States

☐ all designated States except the
United States of America

☒ the United States
of America only

☐ the States indicated
in the Supplemental

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

- ☐ applicant only
☐ applicant and inventor
☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

State (that is, country) of residence:

This person is
applicant for the

☐ all designated
States

☐ all designated States except the
United States of America

☐ the United States
of America only

☐ the States indicated
in the Supplemental

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

- ☐ applicant only
☐ applicant and inventor
☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

State (that is, country) of residence:

This person is
applicant for the

☐ all designated
States

☐ all designated States except the
United States of America

☐ the United States
of America only

☐ the States indicated
in the Supplemental



Further applicants and/or (further) inventors are indicated on another continuation sheet.

Supplemental Box *If the Supplemental Box is not used, this sheet should not be included in the request.*

1. *If, in any of the Boxes, except Boxes Nos VIII(i) to (v) for which a special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:*
 - (i) *if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;*
 - (ii) *if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;*
 - (iii) *if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;*
 - (iv) *if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;*
 - (v) *if, in Box No. VI, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box VI.*
2. *If the applicant intends to make an indication of the wish that the international application be treated, in certain designated States, as an application for a patent of addition, certificate of addition, inventor's certificate of addition or utility certificate of addition: in such a case, write the name or two-letter code of each designated State concerned and the indication "patent of addition," "certificate of addition," "inventor's certificate of addition" or "utility certificate of addition," the number of the parent application or parent patent or other patent grant and the date of grant of the parent patent or other patent grant or the date of filing of parent application (Rules 4.11(a)(iii) and 49bis.1(a) or (b)).*
3. *If the applicant intends to make an indication of the wish that the international application be treated, in the United States of America, as a continuation or continuation-in-part of an earlier application: in such a case, write "United States of America" or "US" and the indication "continuation" or "continuation-in-part" and the number and the filing date of the parent application (Rules 4.11(a)(iv) and 49.bis.1(d)).*

Con't. of Box IV:
 ASHER, Robin W., Reg. No. 41,590
 PARANJPE, Jay S., Reg. No. 45,486
 MACKENZIE, Kevin S., Reg. No. 45,639

Box No. V DESIGNATIONS

The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

- ☐ DE Germany is not designated for any kind of national protection
- ☐ KR Republic of Korea is not designated for any kind of national protection
- ☐ RU Russian Federation is not designated for any kind of national protection

(The check-boxes above may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. See the Notes to Box No. V as to the consequences of such national law provisions in these and certain other States.)

Box No. VI PRIORITY CLAIM

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member	regional application:* regional Office	international application: receiving Office
item (1) 28JUL2003 07/28/2003	60/490,498	US		
item (2)				
item (3)				

☐ Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:

- ☐ all items ☒ item (1) ☐ item (2) ☐ item (3) ☐ other, see Supplemental Box

* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)):

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA/EP

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year) Number Country (or regional Office)

Box No. VIII DECLARATIONS

The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):

Number of
declarations

- | | | |
|---|--|---|
| <input type="checkbox"/> Box No. VIII (i) | Declaration as to the identity of the inventor | : |
| <input type="checkbox"/> Box No. VIII (ii) | Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent | : |
| <input type="checkbox"/> Box No. VIII (iii) | Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application | : |
| <input type="checkbox"/> Box No. VIII (iv) | Declaration of inventorship (only for the purposes of the designation of the United States of America) | : |
| <input type="checkbox"/> Box No. VIII (v) | Declaration as to non-prejudicial disclosures or exceptions to lack of novelty: | : |

Box No. IX CHECK LIST; LANGUAGE OF FILING


This international application contains:	This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):	Number of items
(a) in paper form, the following number of sheets:	1. <input checked="" type="checkbox"/> fee calculation sheet	: 1
request (including declaration sheets) : 5	2. <input checked="" type="checkbox"/> original separate power of attorney	: 3
description (excluding sequence listing and/or tables related thereto) : 5	3. <input checked="" type="checkbox"/> original general power of attorney	: 1
claims : 1	4. <input type="checkbox"/> copy of general power of attorney; reference number, if any:	:
abstract : 1	5. <input type="checkbox"/> statement explaining lack of signature	:
drawings : 4	6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s):	:
Sub-total number of sheets : 16	7. <input type="checkbox"/> translation of international application into (language):	:
sequence listing :	8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material	:
tables related thereto :	9. <input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)	:
(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c))	(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) :	:
Total number of sheets : 16	(ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter :	:
(b) <input type="checkbox"/> only in computer readable form (Section 801(a)(i))	(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column :	:
(i) <input type="checkbox"/> sequence listing	10. <input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers)	:
(ii) <input type="checkbox"/> tables related thereto	(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application)	:
(c) <input type="checkbox"/> also in computer readable form (Section 801(a)(ii))	(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater)	:
(i) <input type="checkbox"/> sequence listing	(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column :	:
(ii) <input type="checkbox"/> tables related thereto	11. <input checked="" type="checkbox"/> other (specify): Assignment; return postcard; PTO-2038	:
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the		
<input type="checkbox"/> sequence listing:		
<input type="checkbox"/> tables related thereto:		
(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)		

Figure of the drawings which should accompany the abstract: 1

Language of filing of the international application: English

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).



SIMONELLI, David J., Reg. No. 36,680
 Clark Hill PLC
 500 Woodward Avenue, Suite 3500
 Detroit, Michigan 48226-3435 US

For receiving Office use only		2. Drawings: <input type="checkbox"/> received: <input type="checkbox"/> not received:
1. Date of actual receipt of the purported international application:		
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA/	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

JS

PCT

To:

see form PCT/ISA/220

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2004/025719

International filing date (day/month/year)
28.07.2004

Priority date (day/month/year)
28.07.2003

International Patent Classification (IPC) or both national classification and IPC
B60G3/24, B60G9/02, B60G7/00, B60K17/16

Applicant
MAGNA INTERNATIONAL, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Tsitsilonis, L

Telephone No. +31 70 340-2879



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/025719

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/025719

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1,2,3
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1,2,3
Industrial applicability (IA)	Yes: Claims	1,2,3
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

1 The following document is referred to in this communication:

D1 : WO 96/00661 A (SJOESTEN KJELL ; VOLVO AB (SE); ZETTERSTROEM
SIGVARD (SE)) 11 January 1996 (1996-01-11)

D2: US-A-3 147 815 (ZORA ARKUS-DUNTOV ET AL) 8 September 1964 (1964-
09-08)

D3: PATENT ABSTRACTS OF JAPAN vol. 0184, no. 24 (M-1652), 9 August
1994 (1994-08-09) -& JP 6 127231 A (MAZDA MOTOR CORP), 10 May
1994 (1994-05-10)

2 INDEPENDENT CLAIM 1

**2.1 The present application does not meet the criteria of Article 33(1) PCT, because
the subject-matter of claim 1 does not involve an inventive step in the sense of
Article 33(3) PCT.**

Document D1 discloses (see figures; the references in parenthesis applying to this
document):

An integrated rear suspension assembly fixedly securable to a transmission case
(4), rear wheel carriers (16) and frame rails of a motor vehicle (i.e. vehicle
undercarriage; see page 3, lines 38-39), said integrated rear suspension assembly
comprising:

a plurality of trailing arms (18) having first and second ends, each of said first ends
secured to one of the frame rails (see page 4, lines 9-12) and each of the second
ends secured to each of the rear wheel carriers (15,16);

a plurality of control arms(12,13,14) pivotally secured to each of said rear wheel
carriers (16);

a compound link member (24) having opposing ends attached to each of said
plurality of trailing arms (18,22); and

a transmission cross member (1,2,3) fixedly secured to the vehicle undercarriage,
said transmission cross member including fixtures (see figures) to receive
and secure the transmission case (see page 3, lines 28-34) and each of the
said plurality of control arms (12,13,14) thereto such that said transmission
cross member (1,2,3) facilitates said integrated rear suspension assembly and
the transmission case (4) to be assembled prior to securing said integrated
suspension assembly to the frame rails (i.e. vehicle undercarriage).

- 2.2 The subject matter of claim 1 therefore differs from this known integrated rear suspension assembly in that it refers to a suspension arrangement where the plurality of control arms are pivotally secured to each of the plurality of trailing arms instead of being pivotally secured to each of the rear wheel carriers.
- 2.3 The problem to be solved by the present invention may be regarded as simply constructing an integrated rear suspension assembly for a very similar independent suspension arrangement where one end of each of the plurality of trailing arms forms the wheel carrier.
- 2.4 Such a suspension arrangement where one end of each of the plurality of trailing arms forms the wheel carrier, is well known in the field of vehicle suspensions (see for example document D2). Since the features of independent claim 1 have already been employed for the same purpose in the similar integrated rear suspension assembly disclosed in document D1, it would therefore be obvious to the person skilled in the art, to apply these features with corresponding effect to a rear suspension assembly according to document D2, thereby arriving at an integrated rear suspension assembly according to claim 1.

3 DEPENDENT CLAIMS 2,3

Dependent claim 2,3 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to inventive step (Article 33(3) PCT), in particular:

- the features of claim 2 are disclosed in document D1 (see page 3, lines 28-34) or in document D2 (see figure 1).
- the features of claim 3, although they are not directly related to the proposed suspension arrangement, it is however disclosed in document D3 (see figure 3).

4 CONCLUSION

For the reasons given above, claims 1 to 3 of the present application lack of inventive step (Article 33(3)PCT).